UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,804	10/06/2003	Teresa Joanne Hunkeler	1-2-0388.1US	3395

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/679,804	HUNKELER ET AL.
	Examiner	Art Unit	
	Kibrom T. Hailu	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 August 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-23</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-23</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>06 October 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed August 22, 2007 have been fully considered but they are not persuasive because Reynolds discloses the claimed invention as set forth in the previous Office Action. Therefore, the finality of this Office Action is deemed proper.

Re claims 1, 8, 18 and 22: on pages 8 and 9, Applicants argue that the Reynolds (US 7,149,524 B1) doesn't disclose the claimed invention "translating QoS requirements of a first communication system to equivalent requirements of a second communication system" (specifically on page 9, lines 22-24). However, the Examiner respectfully disagrees with the Applicants' assertion that the Reynolds reference doesn't disclose the indicated subject matter.

Contrary to the Applicants arguments, Reynolds discloses handing over from one wireless communication system to another communication system, such as GSM, W-CDMA and WLAN based on Quality of Service (QoS) (Fig. 1; col. 5, lines 36-41). That is, when the Quality of Service within the current wireless communication system or radio access domain is deteriorated or even predicted to deteriorate, handover to another wireless system is executed.

Regarding the Applicants' argument on page 9, "Nowhere does Reynolds disclose the claimed translation of QoS requirements across two different wireless communication systems...", the Examiner respectfully disagrees with the Applicants argument. Contrary to the Applicants' assertion, Reynolds discloses configuring to translate or to change Quality of Service requirement (see col. 3, lines 62-64, "...Quality of Service (QoS) requirements of a user may change as a result of a new application being used during a communication session..."). To begin with, all the different wireless communication systems (such as the GSM, W-CDMA and WLAN

disclose in Reynolds) have different Quality of Service. And, since the handing over between

these systems is executed while a user is actively engaged in a communications session (see col.

1, lines 39-46), it obvious for one of ordinary skill in the art to realize the occurrence of changing

of Quality of Service. Please, compare this with paragraph [0024] of the Applicants'

specification.

The other Applicants argument is that Reynolds discloses a method including testing

handover against network policy...(Pages, 8 and 9). With all due respect, this is irrelevant to the

claimed invention or limitations because either the claimed invention or the specification do not

address or talk about not to "include testing handover against network policy". In fact, contrary

to the above argument, the Applicants address saying, "the translation between various types of

wireless communication systems may be performed in any manner, as desired, with the

important point being that such mapping occurs". Therefore, the important thing is that to switch

from one wireless network system to another based on the Quality of Service without

interrupting the user's communication session, and the main reason to switch from one system to

another is the degradation of the QoS.

In view of the above disclosure, the Applicants arguments are not persuasive. Therefore,

the claimed invention (claims 1, 8, 18 and 22) is not patentable.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
> in the United States before the invention by the applicant for patent or (2) a patent granted on an application for

patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Reynolds et al. (US Patent 7,149,524).

Regarding claim 1, Reynolds discloses a wirelesstransmit/receive unit (WTRU) configured for seamless operation across various types of wireless communication systems (fig. 1; col. 2, lines 37-40), the WTRU comprising: at least one application for performing a wireless service wherein the application is configured to translate quality of service requirements across various types of wireless communication systems (col. 5, lines 50-55; col. 3, lines 55-64; col. 1, lines 13-21, explains handover between different networks based on the quality of service while the user is actively engaged in a communication session. Obviously, a better quality of service is used to maintain the call because Reynolds teaches the call is not dropped when the user moves from one network system to another or when handing over between the network systems GSM, W-CDMA and WLAN); and at least one bearer for transmitting user-information signals related to the translated quality of service requirements between user-network interfaces (see fig. 1; col. 2, lines 14-30, illustrates the mobile station 8 is communicate with the communication systems or networks GSM, W-CDMA and WLAN via the paths of nodes 3, 5 and 7, in combination with col. 3, lines 62-64, translated or changed QoS).

Regarding claim 2, Reynolds discloses the application is configured to receive incoming quality of service requirements specified according to one type of wireless communication system and translate the requirements to output the requirements according to another type of wireless communication system (col. 5, lines 36-41).

Regarding **claim 3**, Reynolds further discloses including a plurality of bearers, wherein the number of bearers corresponds to the number of wireless communication systems that the application is capable of translating (fig. 1; col. 2, lines 28-30, explains the mobile station 8 communicates to the respective networks GSM 2, W-CDMA 4 and WLAN 6 through the nodes 3, 5, and 7 and respective transmission paths, which are also called bearers and are known in the art).

Regarding **claim 4**, Reynolds discloses the WTRU hands over from a first cellular type wireless communication system to a second cellular type wireless communication system and the application translates quality of service requirements of the first system to that of the second system in order to continue a service initiated in the first system (col. 1, lines 39-46; col. 5, lines 36-41; col. 5, lines 50-55).

Regarding **claim 5**, Reynolds discloses the first cellular type wireless communication system is a UMTS system and the second cellular type wireless communication system is a CDMA 2000 system (fig. 1; col. 1, lines 43-46; col. 2, lines 14-25).

Regarding **claim 6**, Reynolds discloses the WTRU hands over from a cellular type wireless communication system to a wireless local area network (WLAN) type wireless communication system and the application translates quality of service requirements of the cellular type system to that of the WLAN type system in order to continue a service initiated in the cellular system (fig. 1; col. 2, lines 14-25; col. 1, lines 39-46; col. 5, lines 36-41; col. 5, lines 50-55).

Regarding **claim 7**, Reynolds discloses the WTRU hands over from a wireless local area network (WLAN) type wireless communication system to a cellular type wireless

communication system and the application translates quality of service requirements of the

WLAN type system to that of the cellular type system in order to continue a service initiated in

the WLAN system (fig. 1; col. 2, lines 14-25; col. 1, lines 39-46; col. 5, lines 36-41; col. 5, lines

50-55).

Regarding claim 8, Reynolds discloses a wireless transmit/receive unit (WTRU)

configured for seamless operation across various types of wireless communication systems (fig.

1; col. 2, lines 37-40), the WTRU comprising: at least one application for performing a wireless

service (col. 1, lines 27-39); at least one bearer for transmitting user-information signals between

user-network interfaces (see fig. 1; col. 2, lines 14-30, illustrates the mobile station 8 is

communicate with the communication systems or networks GSM, W-CDMA and WLAN via the

paths of nodes 3, 5 and 7); and at least one translator (handover manager 10) between the

application and the bearer for translating quality of service requirements whereby sessions

established in a first wireless communication system may continue when the WTRU hands over

to other various types of wireless communication systems (col. 5, lines 50-55; col. 3, lines 55-64;

col. 1, lines 13-21, explains handover between different networks by the handover manager 10

based on the quality of service while the user is actively engaged in a communication session.

Obviously, a better quality of service is used to maintain the call because Reynolds teaches the

call is not dropped when the user moves from one network system to another or when handing

over between the network systems GSM, W-CDMA and WLAN).

Regarding claim 9, Reynolds discloses the translator (handover manager 10) is

configured to receive incoming quality of service requirements specified according to one type

of wireless communication system and translate the requirements to output the requirements according to another type of wireless communication system (col. 5, lines 34-41).

Regarding claim 10, Reynold discloses incoming quality of service requirements are received and are routed to an appropriate translator and bearer to continue operation of the application while the WTRU hands over between various types of wireless communication systems (col. 2, lines 14-45).

Regarding claim 11, Reynold discloses the WTRU hands over from a first cellular type wireless communication system to a second cellular type wireless communication system and the translator translates quality of service requirements of the first system to that of the second system in order to continue a service initiated in the first system (col. 1, lines 39-46; col. 5, lines 34-41; col. 5, lines 50-55).

Regarding claim 12, Reynolds discloses the translated quality of service requirements are transmitted over a bearer service corresponding to the second system (fig. 1; col. 2, lines 28-37).

Regarding claim 13, Reynolds discloses the first cellular type wireless communication system is a UMTS system and the second cellular type wireless communication system is a CDMA 2000 system (fig. 1; col. 1, lines 43-46; col. 2, lines 14-25).

Regarding claim 14, Reynolds discloses the WTRU hands over from a cellular type wireless communication system to a wireless local area network (WLAN) type wireless communication system and the translator translates quality of service requirements of the cellular type system to that of the WLAN type system in order to continue a service initiated in the

cellular system (fig. 1; col. 2, lines 14-25; col. 1, lines 39-46; col. 5, lines 36-41; col. 5, lines 50-55).

Regarding claim 15, Reynolds discloses the translated quality of service requirements are transmitted over a bearer service corresponding to the WLAN type system (fig. 1; col. 2, lines 28-37).

Regarding claim 16, Reynolds discloses the WTRU hands over from a wireless local area network (WLAN) type wireless communication system to a cellular type wireless communication system and the application translates quality of service requirements of the WLAN type system to that of the cellular type system in order to continue a service initiated in the WLAN system (fig. 1; col. 2, lines 14-25; col. 1, lines 39-46; col. 5, lines 36-41; col. 5, lines 50-55).

Regarding claim 17, Reynolds discloses the translated quality of service requirements are transmitted over a bearer service corresponding to the cellular type system (fig. 1; col. 2, lines 28-37).

Regarding claim 18, Reynolds discloses a wireless communication system (fig. 1; col. 2, lines 14-18), comprising: at least one interfacing device through which wireless transmit/receive units (WTRUs) may interface with the wireless communication system (fig. 1; col. 2; lines col. 28-30, 40-45, the nodes 3, 5 and 7 are the interfacing devices through which the user equipment or mobile stations communicate with the plurality of radio access domains GSM, W-CDMA and WLAN); and (handover manager 10, and nodes 3, 5 and 5) for receiving quality of service requirements from a WTRU requesting handover to the wireless communication system wherein the quality of service requirements are specified according to a different type of wireless

communication system from which the WTRU is requesting handover from and a translator

configured to translate the quality of service requirements to continue a service initiated in the

system from which the WTRU is requesting handover from (col. 5, line 34- col. 6, line 3; col. 7,

lines 1-24; col. 8, lines 31-38; col. 3, line 66-col. 4, line 27).

Regarding claim 19, Reynolds discloses the wireless communication system is a cellular

type wireless communication system and the translation of quality of service requirements is

performed in the core network (col. 2, line 66-col. 3, line 6).

Regarding claim 20, Reynolds discloses the wireless communication system is a

wireless local area network (WLAN) type wireless communication system and the translation of

quality of service requirements is performed at an access point (fig. 1 and 3; col. 5, lines 34-55,

one out of the plurality of network systems is WLAN and the handover manager 10 performs the

handover function based on the quality of the servicces of the respective network access domains

or systems).

Regarding claim 21, Reynold discloses the translation of quality of service requirements

is performed at an access router (col. 5, lines 34-55, the handover based on the quality of services

is performed by the handover manager 10).

Regarding claim 22, Reynolds discloses a method for providing seamless handover

between various types of wireless communication systems (col. 2, lines 37-40; claim 1),

comprising the steps of : initiating an application in a wireless transmit/receive unit (WTRU)

operating in a first type of wireless communication system (col. 3, lines 55-64; fig. 1, the user

wireless transmit/receive unit or the mobile station initaites comminication in one of the plurality

of network access domains GSM, W-CMDA and WLAN); requesting handover of the WTRU

from the first system to a second type of wireless communication system (col. 1, lines 36-46,

illustrates a user initiates communication session using one of the plurality of the networks and

handover to another while maintaining the call or communication); translating quality of service

requirements from the specifications of the first system to the specifications of the second

system; handing over the WTRU to the second system; and continuing operating in the second

system the application that was initiated in the first system, wherein the application is continued

with the quality of service requirements specified according to the specifications of the second

system (fig. 1; col. 5, lines 50-55; col. 3, lines 55-64; col. 1, lines 13-21, explains handover

between different networks based on the quality of service while the user is actively engaged in

a communication session or the without stopping the first call. Obviously, a better quality of

service is used to maintain the call because Reynolds teaches the call is not dropped when the

user moves from one network system to another or when handing over between the network

systems GSM, W-CDMA and WLAN. That is, since Reynolds teaches handovers between the

above network systems is performed while the user engaged in the initial communication and

each of the network systems has different quality of service, translation of translation from one

netwok to another).

Regarding claim 23, Reynolds discloses the application is continued in the second

system using a bearer that corresponds to the second system (fig. 1; col. 2, lines 28-30, illustrates

that the mobile station 8 is communicated to the respective networks GSM, W-CDMA and

WLAN through the nodes 3, 5, and 7 and respective transmission paths, which are also called

bearers and are known in the art).

Conclusion

4.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

5.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure:

Melaku et al. (US 2003/0074443 A1)... discloses mapping Quality of Service.

Lucidarme et al. (US 7,123,910 B2)... explains Quality of Service requirements .

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kibrom T. Hailu whose telephone number is (571)270-1209. The

examiner can normally be reached on Monday-Thursday 8:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ricky Q. Ngo can be reached on (571)272-3139. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kth
09/13/07

RICKY Q. NGO
SUPERVISORY PATENT EXAMINER